Hydric Soils

Waseca County, Minnesota

[This report lists only those map unit components that are rated as hydric. Dashes (---) in any column indicate that the data were not included in the database. Definitions of hydric criteria codes are included at the end of the report]

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
GP:					
Pits, gravel-Udipsamments complex	Pits, gravel	80	Moraines, Outwash plains, Stream terraces		---
	Udipsamments	20	Moraines, Outwash plains, Stream terraces		---
L5A:					
Delft, overwash-Delft complex, 1 to 4 percent slopes	Delft, overwash	45	Drainageways, Moraines, Swales	No	---
	Delft	35	Drainageways, Moraines, Swales	Yes	2B3
	Delft, frequently flooded	8	Drainageways, Moraines, Swales	Yes	2B3
	Terril	5	Hills, Moraines	No	---
	Glencoe	4	Depressions, Moraines	Yes	2B3, 3
	Poorly drained soil	3	Drainageways, Moraines, Swales	Yes	2B3
L13A:					
Klossner muck, depressional, 0 to 1 percent slopes	Klossner, drained	80	Depressions, Moraines	Yes	1
	Mineral soil, drained	15	Depressions, Moraines	Yes	2B3
	Houghton, drained	5	Depressions, Moraines	Yes	1
L14A:					
Houghton muck, depressional, 0 to 1 percent slopes	Houghton, drained	80	Depressions, Moraines	Yes	1
	Klossner, drained	10	Moraines	Yes	1
	Mineral soil, drained	10	Moraines	Yes	2B3
L15A:					
Klossner, Okoboji, and Glencoe soils, ponded, 0 to 1 percent slopes	Glencoe, ponded	30	Depressions, Moraines	Yes	2B3, 3
	Klossner, ponded	30	Depressions, Moraines	Yes	1, 3
	Okoboji, ponded	30	Depressions, Moraines	Yes	2B3, 3
	Houghton, ponded	10	Moraines	Yes	1, 3

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L16A:					
Muskego, Blue Earth, and Houghton soils, ponded, 0 to 1 percent slopes	Blue Earth, ponded	30	Depressions, Moraines	Yes	2B3, 3
	Houghton, ponded	30	Depressions, Moraines	Yes	1, 3
	Muskego, ponded	30	Depressions, Moraines	Yes	1, 3
	Klossner, ponded	10	Moraines	Yes	1, 3
L26B:					
Shorewood silty clay loam, 3 to 6 percent slopes	Shorewood	90	Hills, Lake plains, Moraines	No	---
	Good Thunder	5	Lake plains, Moraines	No	---
	Minnetonka	5	Lake plains, Moraines	Yes	2B3
L36A:					
Hamel, overwash-Hamel complex, 1 to 4 percent slopes	Hamel, overwash	50	Drainageways, Moraines	No	---
	Hamel	43	Drainageways, Moraines	Yes	2B3
	Terril	5	Hills, Moraines	No	---
	Glencoe	2	Moraines	Yes	2B3, 3
L40B:					
Angus-Kilkenny complex, 2 to 6 percent slopes	Angus	45	Hills, Moraines	No	---
	Kilkenny	40	Hills, Moraines	No	---
	Lerdal	10	Moraines	No	---
	Mazaska	5	Moraines, Swales	Yes	2B3
L41C2:					
Lester-Kilkenny complex, 6 to 12 percent slopes, eroded	Lester, eroded	45	Hills, Moraines	No	---
	Kilkenny, eroded	40	Hills, Moraines	No	---
	Terril	10	Hills, Moraines	No	---
	Derrynane	5	Drainageways, Moraines	Yes	2B3

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L41D2:					
Lester-Kilkenny complex, 12 to 18 percent slopes, eroded	Lester, eroded	45	Hills, Moraines	No	---
	Kilkenny, eroded	35	Hills, Moraines	No	---
	Terril	10	Hills, Moraines	No	---
	Derrynane	5	Drainageways, Moraines	Yes	2B3
	Ridgeton	5	Hills, Moraines	No	---
L41E:					
Lester-Kilkenny complex, 18 to 25 percent slopes	Lester	45	Hills, Moraines	No	---
	Kilkenny	40	Hills, Moraines	No	---
	Derrynane	5	Drainageways, Moraines	Yes	2B3
	Ridgeton	5	Hills, Moraines	No	---
	Terril	5	Hills, Moraines	No	---
L48A:					
Derrynane, overwash-Derrynane complex, 1 to 4 percent slopes	Derrynane, overwash	50	Drainageways, Moraines	No	---
	Derrynane	40	Drainageways, Moraines	Yes	2B3
	Glencoe	5	Depressions, Moraines	Yes	2B3, 3
	Terril	5	Hills, Moraines	No	---
L49A:					
Klossner soils, depressional, 0 to 1 percent slopes	Klossner, surface drained	65	Moraines	Yes	1, 3
	Klossner, drained	20	Moraines	Yes	1
	Mineral soil, drained	15	Moraines	Yes	2B3

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L50A:					
Houghton and Muskego soils, depressional, 0 to 1 percent slopes	Houghton, surface drained	40	Moraines	Yes	1, 3
	Muskego, surface drained	40	Moraines	Yes	1, 3
	Klossner, drained	10	Moraines	Yes	1
	Mineral soil, drained	10	Moraines	Yes	2B3
L51C2:					
Gladek silt loam, 6 to 12 percent slopes, eroded	Gladek, eroded	80	Hills, Lake plains	No	---
	Barrington	10	Hills, Lake plains	No	---
	Lester, eroded	5	Hills, Moraines	No	---
	Madelia	5	Lake plains	Yes	2B3
L56A:					
Muskego and Klossner soils, 0 to 1 percent slopes, frequently flooded	Klossner, frequently flooded	45	Flood plains	Yes	1, 3, 4
	Muskego, frequently flooded	45	Flood plains	Yes	1, 3, 4
	Suckercreek, frequently flooded	10	Flood plains	Yes	2B3, 4
L57A:					
Medo muck, depressional, 0 to 1 percent slopes	Medo, drained	80	Depressions, Outwash plains, Stream terraces	Yes	1
	Mineral soil, drained	15	Outwash plains, Stream terraces	Yes	2B3
	Houghton, drained	5	Outwash plains, Stream terraces	Yes	1
L63A:					
Klossner muck, lake plain, depressional, 0 to 1 percent slopes	Klossner, lake plain	85	Depressions, Lake plains	Yes	1
	Lura	10	Depressions, Lake plains	Yes	2B3
	Brownton	5	Flats, Lake plains	Yes	2B3

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L64A:					
Tadkee-Tadkee, depressional, complex, 0 to 2 percent slopes	Tadkee	50	Beaches, Moraines	Yes	2B2
	Tadkee, depressional	36	Beaches, Moraines	Yes	2B3, 3
	Better drained soil	8	Beaches, Moraines	No	---
	Granby	4	Beaches, Moraines	Yes	2B2, 3
	Less sandy soil	2	Beaches, Moraines	Yes	2B3
L73A:					
Blue Earth mucky silty clay loam, depressional, 0 to 1 percent slopes	Blue Earth, depressional	80	Depressions, Lake plains, Moraines	Yes	2B3, 3
	Canisteo	10	Depressions, Flats, Moraines, Rims	Yes	2B3
	Belleville	5	Beaches, Moraines	Yes	2B3
	Essexville	5	Depressions, Flats, Moraines, Rims	Yes	2B3
L74A:					
Estherville sandy loam, terrace, 0 to 2 percent slopes	Estherville, terrace	87	Flats, Rises, Stream terraces	No	---
	Hawick	10	Hills, Outwash plains	No	---
	Biscay	3	Flats, Outwash plains, Stream terraces	Yes	2B3
L75B:					
Barrington silt loam, 2 to 6 percent slopes	Barrington	85	Hills, Lake plains	No	---
	Gladek	10	Hills, Lake plains	No	---
	Madelia	5	Lake plains	Yes	2B3

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L76B:					
Dickinson fine sandy loam, 1 to 6 percent slopes	Dickinson	80	Deltas, Hills, Hills, Outwash plains	No	---
	Litchfield	13	Deltas, Outwash plains, Terraces	No	---
	Darfur	5	Outwash plains	Yes	2B3
	Clarion	2	Hills, Moraines	No	---
L77A:					
Brownton silty clay loam, 0 to 2 percent slopes	Brownton	75	Depressions, Lake plains, Rims	Yes	2B3
	Marna	15	Flats, Flats, Lake plains, Moraines, Swales, Swales	Yes	2B3
	Lura	10	Depressions, Lake plains	Yes	2B3
L78A:					
Canisteo clay loam, 0 to 2 percent slopes	Canisteo	65	Depressions, Flats, Moraines, Rims	Yes	2B3
	Crippin	10	Flats, Moraines, Rises	No	---
	Glencoe, depressional	10	Depressions, Moraines	Yes	2B3, 3
	Canisteo, depressional	5	Depressions, Moraines	Yes	2B3
	Harps	5	Depressions, Moraines, Rims	Yes	2B3
	Webster	5	Flats, Moraines, Swales	Yes	2B3

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L79B:					
Clarion loam, 2 to 5 percent slopes	Clarion	60	Hills, Moraines	No	---
	Clarion, moderately eroded	25	Hills, Moraines	No	---
	Nicollet	8	Moraines, Rises	No	---
	Ocheyedan	5	Hills, Moraines	No	---
	Webster	2	Flats, Moraines, Swales	Yes	2B3
L80C2:					
Lester loam, 6 to 12 percent slopes, eroded	Lester, eroded	75	Hills, Moraines	No	---
	Terril	10	Hills, Moraines	No	---
	Hamel	5	Moraines	Yes	2B3
	Reedslake	5	Hills, Moraines	No	---
	Storden, eroded	5	Hills, Moraines	No	---
L80D2:					
Lester loam, 12 to 18 percent slopes, eroded	Lester, eroded	75	Hills, Moraines	No	---
	Ridgeton	10	Hills, Moraines	No	---
	Storden, eroded	8	Hills, Moraines	No	---
	Terril	5	Hills, Moraines	No	---
	Hamel	2	Moraines	Yes	2B3
L81A:					
Cordova clay loam, 0 to 2 percent slopes	Cordova	85	Moraines, Swales	Yes	2B3
	Le Sueur	10	Moraines	No	---
	Rolfe	5	Depressions, Moraines	Yes	2B3

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L82A:					
Marna silty clay loam, 0 to 2 percent slopes	Marna	85	Flats, Lake plains	Yes	2B3
	Barbert	10	Depressions, Lake plains	Yes	2B3
	Guckeen	5	Lake plains, Rises	No	---
L83A:					
Webster clay loam, 0 to 2 percent slopes	Webster	65	Flats, Moraines, Swales	Yes	2B3
	Glencoe, depressional	14	Depressions, Moraines	Yes	2B3, 3
	Canisteo	8	Depressions, Flats, Moraines, Rims	Yes	2B3
	Nicollet	8	Flats, Moraines, Rises	No	---
	Poorly drained soil	5	Flats, Moraines, Swales	Yes	2B3
L84A:					
Glencoe clay loam, depressional, 0 to 1 percent slopes	Glencoe, depressional	80	Depressions, Moraines	Yes	2B3, 3
	Very poorly drained muck	10	Depressions, Moraines	Yes	2B3
	Canisteo	5	Depressions, Flats, Moraines, Rims	Yes	2B3
	Harps	5	Moraines, Rims	Yes	2B3
L85A:					
Nicollet clay loam, 1 to 3 percent slopes	Nicollet	85	Flats, Moraines, Rises	No	---
	Clarion	10	Hills, Moraines	No	---
	Webster	5	Flats, Moraines, Swales	Yes	2B3

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L86A:					
Madelia silty clay loam, 0 to 2 percent slopes	Madelia	90	Flats, Lake plains	Yes	2B3
	Okoboji	5	Depressions, Lake plains, Moraines	Yes	2B3
	Spicer	3	Lake plains	Yes	2B3
	Kingston	2	Lake plains	No	---
L87A:					
Kingston silty clay loam, 1 to 3 percent slopes	Kingston	85	Lake plains, Rises	No	---
	Truman	10	Hills, Lake plains	No	---
	Madelia	5	Lake plains	Yes	2B3
L88A:					
Lura silty clay, depressional, 0 to 1 percent slopes	Lura, depressional	85	Depressions, Lake plains	Yes	2B3
	Brownton	7	Lake plains, Rims	Yes	2B3
	Soils that have a muck surface layer	5	Depressions, Lake plains	Yes	2B3
	Prinsburg	3	Flats, Lake plains	Yes	2B3
L89A:					
Guckeen silty clay loam, 0 to 3 percent slopes	Guckeen	75	Lake plains, Rises	No	---
	Marna	10	Lake plains, Moraines	Yes	2B3
	Nicollet	10	Flats, Moraines, Rises	No	---
	Clarion, clay loam	5	Hills, Moraines	No	---
L90A:					
Le Sueur clay loam, 0 to 3 percent slopes	Le Sueur	75	Moraines, Rises	No	---
	Cordova	13	Moraines	Yes	2B3
	Reedslake	12	Hills, Moraines	No	---

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L91A:					
Mazaska silty clay loam, 0 to 2 percent slopes	Mazaska	85	Flats, Moraines	Yes	2B3
	Lerdal	10	Moraines, Rises	No	---
	Rolfe, depressional	5	Depressions, Moraines	Yes	2B3
L92A:					
Darfur loam, 0 to 2 percent slopes	Darfur	78	Flats, Outwash plains	Yes	2B3
	Fieldon	10	Outwash plains	Yes	2B3
	Litchfield	5	Outwash plains	No	---
	Webster	5	Moraines	Yes	2B3
	Dassel	2	Outwash plains	Yes	2B3
L93A:					
Muskego muck, depressional, 0 to 1 percent slopes	Muskego, depressional	82	Depressions, Moraines	Yes	1
	Blue Earth, depressional	10	Moraines	Yes	2B3
	Mineral soil, drained	5	Moraines	Yes	2B3
	Belleville	3	Beaches, Moraines	Yes	2B3
L94A:					
Lowlein fine sandy loam, terrace, 0 to 3 percent slopes	Lowlein, terrace	75	Flats, Rises, Stream terraces	No	---
	Linder	15	Flats, Rises, Stream terraces	No	---
	Dickinson	8	Hills, Stream terraces	No	---
	Darfur	2	Flats, Stream terraces	Yes	2B3
L95E:					
Hawick gravelly coarse sandy loam, 12 to 25 percent slopes	Hawick	80	Hills, Outwash plains, Stream terraces	No	---
	Estherville	10	Hills, Hills, Outwash plains, Stream terraces	No	---
	Tomall	10	Outwash plains, Stream terraces	No	---

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L96B:					
Estherville-Hawick complex, 2 to 6 percent slopes	Estherville	55	Hills, Hills, Outwash plains, Stream terraces	No	---
	Hawick	35	Hills, Hills, Outwash plains, Stream terraces	No	---
	Tomall	8	Outwash plains, Stream terraces, Swales	No	---
	Biscay	2	Flats, Outwash plains, Swales	Yes	2B3
L97C:					
Hawick-Estherville complex, 6 to 12 percent slopes	Hawick	60	Hills, Hills, Outwash plains, Stream terraces	No	---
	Estherville	30	Hills, Hills, Outwash plains, Stream terraces	No	---
	Tomall	10	Outwash plains, Stream terraces, Swales	No	---
L98A:					
Crippin-Nicollet complex, 1 to 3 percent slopes	Crippin	50	Flats, Moraines, Rises	No	---
	Nicollet	40	Flats, Moraines, Rises	No	---
	Canisteo	5	Depressions, Flats, Moraines, Rims	Yes	2B3
	Clarion	3	Hills, Moraines	No	---
	Moines, friable	2	Moraines	No	---
L99B:					
Clarion-Swanlake complex, 2 to 6 percent slopes	Clarion	62	Hills, Moraines	No	---
	Swanlake	25	Hills, Moraines	No	---
	Nicollet	10	Flats, Moraines, Rises	No	---
	Webster	3	Flats, Moraines, Swales	Yes	2B3

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L100B:					
Clarion-Estherville complex, 2 to 6 percent slopes	Clarion	45	Hills, Moraines	No	---
	Estherville	35	Hills, Moraines	No	---
	Lowlein	5	Flats, Moraines, Rises	No	---
	Nicollet	5	Flats, Moraines, Rises	No	---
	Swanlake	5	Hills, Moraines	No	---
	Webster	5	Flats, Moraines, Swales	Yes	2B3
L101C2:					
Omsrud-Hawick-Storden complex, 6 to 12 percent slopes, eroded	Omsrud, eroded	40	Hills, Moraines	No	---
	Hawick	30	Hills, Moraines	No	---
	Storden, eroded	20	Hills, Moraines	No	---
	Delft	5	Drainageways, Moraines, Swales	Yes	2B3
	Terril	5	Hills, Moraines	No	---
L101D2:					
Omsrud-Hawick-Storden complex, 12 to 18 percent slopes, eroded	Omsrud, eroded	40	Hills, Moraines	No	---
	Hawick	25	Hills, Moraines	No	---
	Storden, eroded	20	Hills, Moraines	No	---
	Ridgeton	6	Hills, Moraines	No	---
	Delft	5	Drainageways, Moraines, Swales	Yes	2B3
	Terril	4	Hills, Moraines	No	---

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L102C2:					
Omsrud-Storden complex, 6 to 12 percent slopes, eroded	Omsrud, eroded	45	Hills, Moraines	No	---
	Storden, eroded	24	Hills, Moraines	No	---
	Omsrud	14	Hills, Moraines	No	---
	Terril	10	Hills, Moraines	No	---
	Delft	5	Drainageways, Moraines, Swales	Yes	2B3
	Crooksford	2	Hills, Moraines	No	---
L102D2:					
Omsrud-Storden complex, 12 to 18 percent slopes, eroded	Omsrud, eroded	45	Hills, Moraines	No	---
	Storden, eroded	20	Hills, Moraines	No	---
	Omsrud	14	Hills, Moraines	No	---
	Ridgeton	9	Hills, Moraines	No	---
	Delft	6	Drainageways, Moraines, Swales	Yes	2B3
	Terril	6	Hills, Moraines	No	---
L103A:					
Fieldon-Canisteo complex, 0 to 2 percent slopes	Fieldon	50	Flats, Moraines	Yes	2B3
	Canisteo	35	Moraines, Rims	Yes	2B3
	Darfur	10	Moraines	Yes	2B3
	Glencoe, depressional	5	Moraines	Yes	2B3, 3

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L105C2:					
Lester-Hawick complex, 6 to 12 percent slopes, eroded	Lester, eroded	45	Hills, Moraines	No	---
	Hawick	35	Hills, Moraines	No	---
	Terril	10	Hills, Moraines	No	---
	Hamel	5	Moraines	Yes	2B3
	Storden, eroded	5	Hills, Moraines	No	---
L105D2:					
Lester-Hawick complex, 12 to 18 percent slopes, eroded	Lester, eroded	45	Hills, Moraines	No	---
	Hawick	35	Hills, Moraines	No	---
	Ridgeton	8	Hills, Moraines	No	---
	Hamel	5	Moraines	Yes	2B3
	Storden, eroded	5	Hills, Moraines	No	---
	Terril	2	Hills, Moraines	No	---
L106C2:					
Lester-Storden complex, 6 to 12 percent slopes, eroded	Lester, eroded	62	Hills, Moraines	No	---
	Storden, eroded	20	Hills, Moraines	No	---
	Terril	10	Hills, Moraines	No	---
	Hamel	5	Drainageways, Moraines	Yes	2B3
	Reedslake	3	Hills, Moraines	No	---

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L106D2:					
Lester-Storden complex, 12 to 18 percent slopes, eroded	Lester, eroded	62	Hills, Moraines	No	---
	Storden, eroded	20	Hills, Moraines	No	---
	Ridgeton	10	Hills, Moraines	No	---
	Terril	5	Hills, Moraines	No	---
	Hamel	3	Drainageways, Moraines	Yes	2B3
L107A:					
Canisteo-Glencoe, depressional, complex, 0 to 2 percent slopes	Canisteo	50	Moraines, Rims	Yes	2B3
	Glencoe, depressional	35	Depressions, Moraines	Yes	2B3, 3
	Harps	9	Moraines, Rims	Yes	2B3
	Canisteo, depressional	3	Depressions, Moraines	Yes	2B3
	Crippin	3	Flats, Moraines, Rises	No	---
L108A:					
Cordova-Rolfe, depressional, complex, 0 to 2 percent slopes	Cordova	65	Flats, Moraines	Yes	2B3
	Rolfe, depressional	30	Depressions, Moraines	Yes	2B3
	Le Sueur	5	Moraines	No	---
L109A:					
Marna-Barbert, depressional, complex, 0 to 2 percent slopes	Marna	65	Flats, Lake plains	Yes	2B3
	Barbert, depressional	30	Depressions, Lake plains	Yes	2B3
	Guckeen	5	Lake plains, Rises	No	---

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L110E:					
Lester-Ridgeton complex, 18 to 25 percent slopes	Lester	50	Escarpments, Moraines	No	---
	Ridgeton	30	Escarpments, Moraines	No	---
	Cokato	10	Escarpments, Moraines	No	---
	Belview	6	Escarpments, Moraines	No	---
	Hamel	2	Escarpments, Moraines	Yes	2B3
	Terril	2	Escarpments, Moraines	No	---
L110F:					
Lester-Ridgeton complex, 25 to 45 percent slopes	Lester	55	Escarpments, Moraines	No	---
	Ridgeton	30	Escarpments, Moraines	No	---
	Cokato	8	Escarpments, Moraines	No	---
	Belview	4	Escarpments, Moraines	No	---
	Terril	2	Escarpments, Moraines	No	---
	Hamel	1	Escarpments, Moraines	Yes	2B3
L111A:					
Nicollet silty clay loam, 1 to 3 percent slopes	Nicollet	80	Flats, Moraines, Rises	No	---
	Okabena	14	Flats, Lake plains, Moraines, Rises	No	---
	Clarion	4	Hills, Moraines	No	---
	Webster	2	Flats, Moraines, Swales	Yes	2B3

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L112A:					
Webster silty clay loam, 0 to 2 percent slopes	Webster	80	Flats, Moraines, Swales	Yes	2B3
	Chetomba	10	Flats, Lake plains, Moraines, Swales	Yes	2B3
	Glencoe, depressional	6	Depressions, Moraines	Yes	2B3, 3
	Canisteo	2	Depressions, Flats, Moraines, Rims	Yes	2B3
	Nicollet	2	Flats, Moraines, Rises	No	---
L113B:					
Reedslake loam, 2 to 5 percent slopes	Reedslake	75	Hills, Moraines	No	---
	Le Sueur	10	Moraines, Rises	No	---
	Reedslake, eroded	10	Hills, Moraines	No	---
	Cordova	5	Moraines, Swales	Yes	2B3
L114A:					
Hanlon fine sandy loam, 0 to 3 percent slopes, rarely flooded	Hanlon, rarely flooded	85	Flood plains	No	---
	Coland, occasionally flooded	10	Flood plains	Yes	2B3
	Minneopa, rarely flooded	5	Flood plains	No	---
L115A:					
Brownton-Lura, depressional, complex, 0 to 2 percent slopes	Brownton	55	Lake plains, Rims	Yes	2B3
	Lura, depressional	35	Depressions, Lake plains	Yes	2B3
	Marna	10	Flats, Lake plains	Yes	2B3

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L116A:					
Le Sueur-Lerdal complex, 1 to 3 percent slopes	Le Sueur	45	Moraines, Rises	No	---
	Lerdal	40	Moraines, Rises	No	---
	Mazaska	10	Drainageways, Moraines	Yes	2B3
	Kilkenny	5	Hills, Moraines	No	---
L117C2:					
Omsrud loam, 6 to 12 percent slopes, eroded	Omsrud, eroded	65	Hills, Moraines	No	---
	Omsrud	15	Hills, Moraines	No	---
	Terril	10	Hills, Moraines	No	---
	Delft	5	Drainageways, Moraines, Swales	Yes	2B3
	Storden, eroded	5	Hills, Moraines	No	---
L118A:					
Rushriver fine sandy loam, 0 to 1 percent slopes, frequently flooded	Rushriver, frequently flooded	85	Flood plains	Yes	2B3, 4
	Houghton, frequently flooded	5	Depressions, Flood plains	Yes	1, 3, 4
	Klossner, frequently flooded	5	Depressions, Flood plains	Yes	1, 3, 4
	Medo, frequently flooded	5	Depressions, Flood plains	Yes	1, 3, 4
L119B:					
Angus loam, 2 to 5 percent slopes	Angus	80	Hills, Moraines	No	---
	Angus, eroded	10	Hills, Moraines	No	---
	Cordova	5	Moraines, Swales	Yes	2B3
	Le Sueur	5	Hills, Moraines	No	---

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L120A:					
Good Thunder silty clay loam, 0 to 3 percent slopes	Good Thunder	80	Lake plains, Rises	No	---
	Minnetonka	10	Flats, Lake plains	Yes	2B3
	Ocheyedan	10	Hills, Moraines	No	---
L121B:					
Clarion clay loam, 2 to 5 percent slopes	Clarion	80	Hills, Moraines	No	---
	Guckeen	15	Moraines, Rises	No	---
	Marna	5	Flats, Moraines	Yes	2B3
L122B:					
Reedslake-Estherville complex, 2 to 6 percent slopes	Reedslake	55	Hills, Moraines	No	---
	Estherville	25	Hills, Moraines	No	---
	Le Sueur	10	Moraines, Rises	No	---
	Cordova	5	Moraines, Swales	Yes	2B3
	Lowlein	5	Moraines	No	---
L123A:					
Belleville sandy loam, 0 to 2 percent slopes	Belleville	85	Beaches, Moraines	Yes	2B3
	Granby	15	Beaches, Moraines	Yes	2B2, 3
L124A:					
Glencoe mucky clay loam, depressional, 0 to 1 percent slopes	Glencoe, mucky clay loam, depressional	85	Depressions, Moraines	Yes	2B3, 3
	Canisteo	10	Moraines, Rims	Yes	2B3
	Glencoe, depressional	5	Depressions, Moraines	Yes	2B3, 3
L125A:					
Hanlon, rarely flooded-Coland, occasionally flooded, complex, 0 to 3 percent slopes	Hanlon, rarely flooded	60	Flood plains	No	---
	Coland, occasionally flooded	25	Flood plains	Yes	2B3
	Minneopa, rarely flooded	15	Flood plains	No	---

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L126A:					
Coland silty clay loam, 0 to 2 percent slopes, occasionally flooded	Coland, occasionally flooded	80	Flats, Flood plains	Yes	2B3
	Minneopa, occasionally flooded	10	Flats, Flood plains, Rises	No	---
	Havelock, occasionally flooded	5	Flats, Flood plains	Yes	2B3
	Spillville, occasionally flooded	5	Flats, Flood plains, Rises	No	---
L127A:					
Coland silty clay loam, channeled, 0 to 2 percent slopes, frequently flooded	Coland, frequently flooded	80	Flats, Flood plains	Yes	2B3, 4
	Minneopa, occasionally flooded	10	Flats, Flood plains, Rises	No	---
	Havelock, frequently flooded	5	Flats, Flood plains	Yes	2B3, 4
	Spillville, occasionally flooded	5	Flats, Flood plains, Rises	No	---
L128A:					
Mazaska-Rolfe, depressional, complex, 0 to 2 percent slopes	Mazaska	60	Flats, Moraines	Yes	2B3
	Rolfe, depressional	30	Depressions, Moraines	Yes	2B3
	Lerdal	10	Moraines	No	---
L129B:					
Terril loam, 2 to 6 percent slopes	Terril	90	Hills, Moraines	No	---
	Delft	5	Drainageways, Moraines, Swales	Yes	2B3
	Hamel	5	Drainageways, Moraines, Swales	Yes	2B3

Hydric Soils

Waseca County, Minnesota

Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric rating	Hydric criteria
L130A:					
Okoboji mucky silty clay loam, depressional, 0 to 1 percent slopes	Okoboji, depressional	75	Depressions, Lake plains, Moraines	Yes	2B3
	Okoboji, silty clay loam, depressional	15	Depressions, Lake plains, Moraines	Yes	2B3
	Brownton	5	Lake plains, Moraines	Yes	2B3
	Spicer	5	Lake plains	Yes	2B3
M-W:					
Water, miscellaneous	Water, miscellaneous	100	---		---
U3B:					
Udorthents, loamy (cut and fill land), 0 to 6 percent slopes	Udorthents, cut and fill land	100	Moraines		---
W:					
Water	Water	100	---		---

Hydric Soils

This table lists the map unit components that are rated as hydric soils in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2003) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and others, 2002).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The criteria for hydric soils are represented by codes in the table (for example, 2B3). Definitions for the codes are as follows:

1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
   A. are somewhat poorly drained and have a water table at the surface (0.0 feet) during the growing season, or
   B. are poorly drained or very poorly drained and have either:
      1) a water table at the surface (0.0 feet) during the growing season if textures are coarse sand, sand, or fine sand in all layers within a depth of 20 inches, or
      2) a water table at a depth of 0.5 foot or less during the growing season if permeability is equal to or greater than 6.0 in/hr in all layers within a depth of 20 inches, or
      3) a water table at a depth of 1.0 foot or less during the growing season if permeability is less than 6.0 in/hr in any layer within a depth of 20 inches.
3. Soils that are frequently ponded for long or very long duration during the growing season.
4. Soils that are frequently flooded for long or very long duration during the growing season.

References:

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.
Federal Register. September 18, 2002. Hydric soils of the United States.
Federal Register. July 13, 1994. Changes in hydric soils of the United States.
Hurt, G.W., P.M. Whited, and R.F. Pringle, editors. Version 5.0, 2002. Field indicators of hydric soils in the United States.
National Research Council. 1995. Wetlands: Characteristics and boundaries.
Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.
Soil Survey Staff. 2003. Keys to soil taxonomy. 9th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.
Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.
Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.
United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.